# Experiment 7: DLL ARQ Mechanisms using TCP Sockets

**Aim:** To use TCP Sockets to implement the ARQ mechanisms at the Data Link Layer

**Objective:** After carrying out this experiment, students will be able to:

* Apply TCP Socket programming technique to implement the ARQ mechanisms at the Data Link Layer

**Problem statement:** You are required to write programs to implement a TCP based server that receives frames sent to it by a client. The functionality of this server is that it should echo any data it receives from a client back to it. You are required to implement stop and wait, go back N and selective repeat ARQ mechanisms. Consider that you have to transmit and receive a total of 20 frames using WT=WR=1, WT=5 and WR=1 and WT=WR=5 for stop and wait, go back N and selective repeat respectively.

**Analysis:** While analyzing your program, you are required to address the following points:

* How does the functionality of the program differ when you have the accept() function call at the server within an infinite loop as opposed to having it outside?

**MARKS DISTRIBUTION**

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| **Component** | **Maximum Marks** | **Marks Obtained** |
| Preparation of Document | 7 |  |
| Results | 7 |  |
| Viva | 6 |  |
| **Total** | **20** |  |

Submitted by:

Register No:

1. Algorithm/Flowchart
2. Program
3. Results
4. Analysis and Discussions
5. Conclusions
6. Comments
   1. Limitations of the experiment
   2. Limitations of the results obtained
   3. Learning
   4. Recommendations